Solution Note

Safer and More Efficient Compliance with the HC900 Process and Safety System

Challenge

Industrial regulatory requirements mean compliance is always a key challenge for operations in the process industries. Standards to ensure the safety of personnel and protection of the environment are more rigid; fines and penalties for failures are more severe.

Safety systems must enable plants to achieve safe and operational excellence by reducing the number of accidents, tightly controlling emissions and ensuring safe shutdowns, when required. They must also meet the varying international regulatory requirements for full compliance, including those for safety integrity level (SIL) applications, while providing a cost-effective, efficient solution.

Solution

Honeywell's HC900 Process and Safety System is a single flexible system for process control and safety. It is fully compliant with the performance-based standards IEC 61508 and IEC 61511; prescriptive-based standards NFPA 85 and NFPA 86; and a range of other standards and regulations such as CSA/FM CL1/DV2, ATEX, ABS, UL, and CE Conformity. It is also certified by TÜV for use in SIL-2 environments.

The system is field proven in a wide range of industries including the chemicals, plastics and rubber, pharmaceuticals and cosmetics, power, cement and glass, pulp and paper, mining and metals, water and wastewater, food and beverage, and heat treatment industries.

It hosts process control and safety applications, providing control, monitoring, password protection for configuration, alarm processing and data acquisition. Its features means it is suitable for a wide range of applications:

- Burner management systems for furnaces, boilers, pre-heaters, kilns, ovens, reactors, calciners, dryers, thermal oxidizers, melters, incinerators, process heaters and vaporizers
- Combustion control

- Pipeline monitoring
- Spill prevention
- Road transportation
- Waste water treatment
- Terminal automation
- Emergency shutdown
- Fire & gas monitoring.

Benefits include faster start-up times, common engineering tools, reduced training, simplified maintenance and a low cost of ownership. HC900 engineering tools and hardware can also easily integrate with Honeywell and other third-party applications for increased throughput, less rework, and secure and accurate process records. Users report reduced human error, lower losses and better safety and reliability across the process.

Safety and SIL-2

HC900's SIL-2 rating means it's ideally suited for a process and safety software environment.

It provides similar hardware and software for process control and safety related applications with options for a separate or a common logic solver for process control and safety applications. The system integrates easily and smoothly with the HMI (HC900 Control Station), Experion HS (SCADA solution), and MatrikonOPC (third-party solutions).

The system's redundant CPU, rack power supply, communications and networking assure high reliability and availability. Removal and insertion can be completed under power, and online monitoring, edits and hardware maintenance completed during running operations. Robust hardware, communications and sensor-level diagnostics and early warning notifications of pending sensor failure mean faults are quickly identified.

HC900's SIL-2 certified CPU displays a digital throughput of only 10 ms, while its External Watchdog Timer with independent clock helps detect failures and bring process to safe state if needed.

The Honeywell Advantage

HC900 SIL-2 is field proven with more than 13,000 installations across process control and critical applications worldwide. Features include advanced, easy to use monitoring and debugging tools, an integrated operator interface, and open Ethernet communications, as well as central and remote I/O capability.

It is designed for the lowest possible total cost of ownership:

- A fully scalable design allows customers to purchase only what the process currently needs
- Universal analog inputs minimize hardware costs and reduce inventory
- No annual software license fees
- Free software web-based downloads for product enhancements
- Worldwide product support with a toll-free support team
- Common tools for process and safety applications reduce training costs
- A single supplier allows an integrated BMS solution

HC900 is designed for safety, as well as highly accurate process control – for increased throughput, reduced scrap and lower energy costs.

It Matters. Learn how Honeywell solutions help solve what matters.

For More Information
To learn more about Honeywell's HC900 Control Systems, visit our website www.honeywellprocess.com or contact your Honeywell account manager.

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